

Claims

We claim:

1. A system for delivering a composition to a nasal membrane comprising:

an applicator assembly having an elongated stick and an applicator at one end of the stick contained within an elongated container having an enclosed first portion for holding the stick, and an enclosed second portion for holding the applicator, wherein the elongated container can be severed to create adjacent open ends of the first and second portions thereby freeing the applicator; and

a composition having a viscosity greater than about 1,500 centipoise.
2. The system of claim 1, wherein the composition includes an active substance.
3. The system of claim 2, wherein the active substance comprises at least one of a vitamin, a mineral, a nucleic acid, an amino acid, a peptide, a polypeptide, a protein, a gene, a mutagen, an antiviral agent, an antibacterial agent, an anti-inflammatory agent, a decongestant, a histamine, an anti-histamine, an anti-allergen, an allergy relief substance, a homeopathic substance, a naturopathic substance, and a pharmaceutical substance.
4. The system of claim 3, wherein the active substance is a decongestant comprising at least one of the following: zinc, oxymetazoline hydrochloride, naphazoline hydrochloride, ephedrine, phenylephrine hydrochloride, xylometaxoline hydrochloride, camphor, eucalyptus oil, menthol, and azulen.

5. The system of claim 2, wherein the composition having an active substrate further comprises at least one of a carrier, a thickener, a permeation enhancer, a preservative, an emulsifier, and a buffer.
6. The system of claim 5 having a carrier comprising glycerin.
7. The system of claim 5 having a thickener comprising at least one of the following: glycerin, carrageenan, sugar, guar gum, methylcellulose, hydroxyethyl cellulose, carbohydrate thickeners, aloe barbadensis gel, antiseptics, preservatives, permeation enhancers, sequestering agents, buffers, and emulsifiers.
8. The system of claim 5 having a permeation enhancer comprising at least one of the following: liposomes, sequestering agents, ascorbic acid, glycerol, chitosan, lysophosphatidylcholin, EDTA, and disodium EDTA.
9. The system of claim 5 having a preservative comprising at least one of a benzalkonium chloride and a benzyl alcohol.
10. The system of claim 5 having an emulsifier comprising at least one of the following: glycerolpolyethylene glycol ricinoleate, fatty acid esters of polyethyleneglycol, ethoxylated glycerol, polyethylene glycol, and hydroxylated lecithin.

11. The system of claim 5 having an a buffer comprising at least one of a monosodium phosphate and a disodium phosphate.
12. The system of claim 2 wherein the active substance is zinc in a zinc composition comprising a zinc gluconate concentration in a range of about 0.9 to about 2.0 weight percent.
13. The system of claim 2 wherein the active substance is zinc in a zinc composition comprising a zinc concentration in a range of about 15mM to about 40mM.
14. The system of claim 12 wherein the zinc composition further comprises about 90 to about 99.1 weight percent of a carrier.
15. The system of claim 14 wherein the carrier includes glycerin.
16. The system of claim 12 wherein the zinc composition further comprises a thickener.
17. The system of claim 16 wherein the thickener is selected from the group consisting of: carbohydrate thickeners, carrageenan, sugar, guar gum, hydroxyethyl cellulose, and methylcellulose.
18. The system of claim 4 wherein the zinc composition further comprises about .01 to about 0.10 weight percent methanol.

19. The system of claim 12 further comprising a preservative.
20. The system of claim 19 wherein the preservative comprises at least one of the following: benzalkonium chloride and benzyl alcohol.
21. An applicator assembly for delivering a composition having an active substance to a nasal membrane comprising:
a sleeve having a handle portion at one end, a receptacle portion at the other end and a transition portion between the two ends wherein the transition portion can be manually severed to separate the handle and receptacle portions of the sleeve; and
a swab having an elongated stick and an applicator element at one end of the stick contained within the sleeve wherein the applicator holds a composition having a viscosity sufficient to maintain the composition in contact with a nasal membrane for an extended period of time..
22. The applicator assembly of claim 21, further comprising an active substance.
23. The applicator assembly of claim 22, wherein the active substance comprises a homeopathic compound.
24. The applicator of claim 22, wherein the active substance is a decongestant comprising at least one of the following: zinc, oxymetazoline hydrochloride, naphazoline

hydrochloride, ephedrine, phenylephrine hydrochloride, xylometaxoline hydrochloride, camphor, eucalyptus oil, menthol, and azulen.

25. The applicator assembly of claim 22, wherein the active substance is zinc.

26. The applicator assembly of claim 25 wherein the active substance is zinc in a zinc composition comprising a zinc gluconate concentration in a range of about 0.9 to about 2.0 weight percent.

27. The applicator assembly of claim 25, wherein the active substance is zinc in a zinc composition comprising a zinc concentration in a range of about 15mM to about 40mM.

28. The applicator assembly of claim 25 wherein the composition further comprises at least one of a carrier, a thickener, a permeation enhancer, a preservative, an emulsifier, and a buffer.

29. The applicator assembly of claim 28 having a carrier comprising glycerin.

30. The applicator assembly of claim 28 having a thickener comprising at least one of the following: glycerin, carrageenan, sugar, guar gum, methylcellulose, hydroxyethyl cellulose, carbohydrate thickeners, aloe barbadensis gel, antiseptics, preservatives, permeation enhancers, sequestering agents, buffers, and emulsifiers.

31. The applicator assembly of claim 28 having a permeation enhancer comprising at least one of the following: liposomes, sequestering agents, ascorbic acid, glycerol, chitosan, lysophosphatidylcholin, EDTA, and disodium EDTA.

32. The applicator assembly of claim 28 having a preservative comprising at least one of a benzalkonium chloride and a benzyl alcohol.

33. The applicator assembly of claim 28 having an emulsifier comprising at least one of the following: glycerolpolyethylene glycol ricinoleate, fatty acid esters of polyethyleneglycol, ethoxylated glycerol, polyethylene glycol, and hydroxylated lecithin.

34. The applicator assembly of claim 28 having an a buffer comprising at least one of a monosodium phosphate and a disodium phosphate.

35. A method for delivering a composition to the nasal membrane comprising the steps of:

providing an applicator having an elongated stick and a portion at one end of the stick contained within an elongated container having an enclosed first portion for holding the stick, and an enclosed second portion for holding the applicator, wherein the applicator holds a composition having a viscosity between about 1,500 to 40,000 centipoise;

applying force to the elongated container to sever the container and separate the first and second portions;

removing the second portion of the elongated container to expose the applicator;
and
applying the composition containing applicator to a nasal membrane.